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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,762

07/13/2006

Kyle Patterson

SC12991CF

6202

23125

7590

02/18/2009

FREESCALE SEMICONDUCTOR, INC.

LAW DEPARTMENT

7700 WEST PARMER LANE MD:TX32/PL02

AUSTIN, TX 78729

EXAMINER

JOHNSON, CONNIE P

ART UNIT

PAPER NUMBER

1795

NOTIFICATION DATE

DELIVERY MODE

02/18/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USADOCKETING@FREESCALE.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,762	<b>Applicant(s)</b> PATTERSON ET AL.	
	<b>Examiner</b> CONNIE P. JOHNSON	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

***Response to Amendment***

1. The remarks and amendment filed 10/29/2008 has been entered and fully considered.
2. Claims 1-8 and 10 are presented.
3. Claim 6 is amended.
4. Claim 9 is cancelled.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Switkes et al., American Vacuum Society in view of Oikawa et al., U.S. Patent No. 5,707,784.

Switkes teaches an immersion exposure method comprising contacting water as the immersion liquid, between the projection lens and the photoresist. The photoresist is then exposed to radiation and developed. Switkes does not teach a shield layer over the photoresist.

However, Oikawa teaches a photoresist composition comprising a substrate, photoresist and a cover layer applied thereon. The cover layer comprises an amorphous polyolefin that is high in transparency for the exposure wavelength, is nonpolar, has

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hydrophobicity, is superior in performance of the cover layer and does not pass impurities contained in the composition (col. 2, lines 57-67). The cover layer is also developable after exposure by conventional solvents, such as tetramethyl ammonium hydroxide (col. 6, lines 62-64). The cover layer of Oikawa is impervious to the immersion liquid (water) and would meet the limitations of the shield layer as claimed. Therefore, the resist composition of Switkes would benefit from the cover layer because the cover layer is not water-soluble. It would have been obvious to one of ordinary skill in the art to use the cover layer of Oikawa on the resist composition of Switkes to protect the resist from damage during exposure, improve performance of the resist composition as taught by Switkes and further, to improve pattern precision and resolution (col. 3, lines 7-8).

### ***Response to Arguments***

7. Applicant's arguments filed 10/29/2008, with respect to the rejection(s) of claim(s) 1-10 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made herein.

8. Applicant argues that Switkes does not teach a shield layer impervious to the immersion liquid.

In the new 103(a) rejection, Oikawa teaches a photoresist composition comprising a cover layer. The cover layer comprises an amorphous polyolefin that is impervious to water, high in transparency for the exposure wavelength, nonpolar, superior in performance of the cover layer and does not pass impurities contained in the composition (col. 2, lines 57-67). The cover layer is also developable after exposure by

conventional solvents, such as tetramethyl ammonium hydroxide (col. 6, lines 62-64). Therefore, the resist composition of Switkes would benefit from the cover layer of Oikawa to improve performance and resolution.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CONNIE P. JOHNSON whose telephone number is (571)272-7758. The examiner can normally be reached on 7:30am-4:00pm Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Connie P. Johnson/  
Examiner, Art Unit 1795

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/Cynthia H Kelly/

Supervisory Patent Examiner, Art Unit 1795